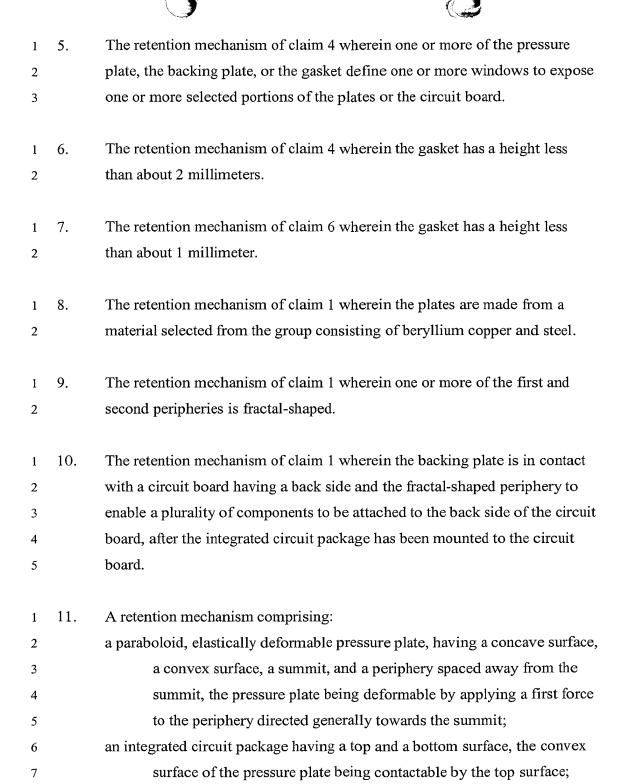


1	1.	A retention mechanism for mounting an integrated circuit package to a
2		circuit board, comprising:
3		a dish-shaped, elastically deformable pressure plate, having a first apex and a
4		first periphery spaced away from the first apex, the pressure plate
5		being deformable by applying a first force to the first periphery
6		directed generally towards the first apex;
7		a dish-shaped, elastically deformable backing plate, having a second apex
8		and a second periphery spaced away from the second apex, the
9		backing plate being deformable by applying a second force to the
10		second periphery directed generally towards the second apex; and
11		means for simultaneously applying the first and second deforming forces to
12		the first and second peripheries to engage the first apex with a surface
13		of the integrated circuit package and the second apex with a surface
14		of the circuit board so as to effect continuous electrical continuity
15		between the integrated circuit package and the circuit board.
1	2.	The retention mechanism of claim 1 wherein an average contact resistance
2		between the integrated circuit package and the circuit board is less than
3		about 50 milliohms.
1	3.	The retention mechanism of claim 2 wherein the average contact resistance
2		is about 13 milliohms.
1	4.	The retention mechanism of claim 1 further comprising an elastically
2		deformable gasket positioned between the pressure plate and the integrated
3		circuit package.



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a circuit board having a top and a bottom surface, the bottom surface of the

9		integrated enturn package being contactable by the top surface, and
10		a paraboloid, elastically deformable backing plate, having a concave surface,
11		a convex surface, a summit, and a periphery spaced away from the
12		summit, the backing plate being deformable by applying a second
13		force, opposing the first force, to the periphery of the backing plate
14		directed generally towards the summit of the backing plate, the
15		bottom surface of the circuit board being contactable by the convex
16		surface of the backing plate; and
17		one or more fasteners to simultaneously apply the first and second deforming
18		forces to the peripheries of the plates
19		to engage the top surface of the integrated circuit package with the
20		convex surface of the pressure plate and the bottom surface of
21		the circuit board with the convex surface of the backing plate
22		and
23		to deform the plates so as to effect continuous electrical continuity
24		between the integrated circuit package and the circuit board.
1	12.	The retention mechanism of claim 11 further comprising a connector
2		interposed between the integrated circuit package and the circuit board.
1	13.	The retention mechanism of claim 12 wherein the connector has a height less
2		than about 2 millimeters.
1	14.	The retention mechanism of claim 13 wherein the connector has a height less
2		than about 1 millimeter.

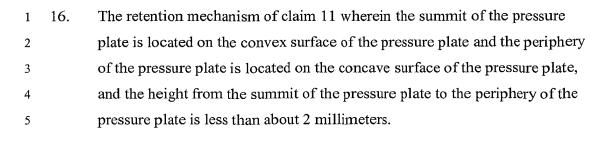
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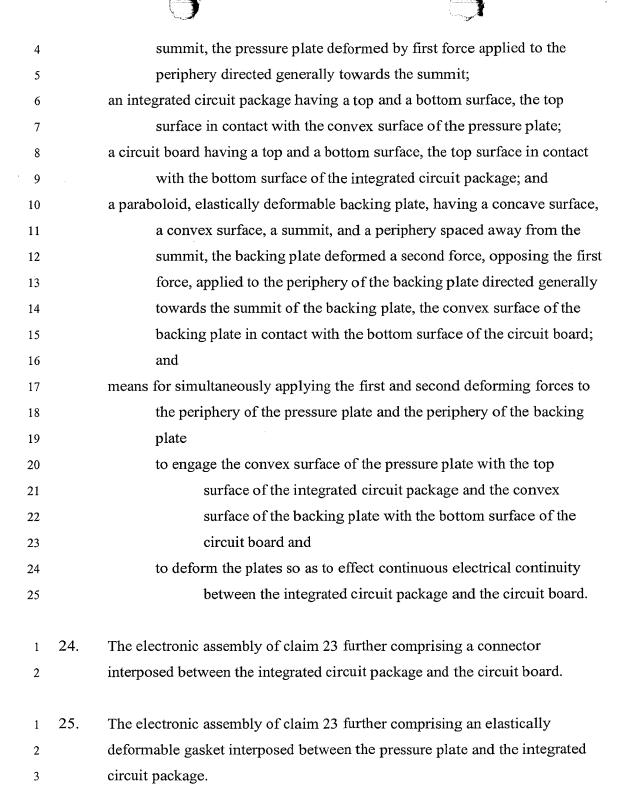
15.

is pinless and the connector is without pin holes.

The retention mechanism of claim 12 wherein the integrated circuit package



- 1 17. The retention mechanism of claim 16 wherein the height from the summit to 2 the periphery is less than about 1.5 millimeters.
- The retention mechanism of claim 11 wherein the summit of the backing plate is located on the concave surface of the backing plate and the periphery of the backing plate is located on the convex surface of the backing plate, and the height from the periphery to the summit is less than about 2 millimeters.
- 1 19. The retention mechanism of claim 18 wherein the height from the periphery to the summit is less than about 1.5 millimeters.
- 1 20. The retention mechanism of claim 11 wherein the integrated circuit package includes an organic land grid array.
- 1 21. The retention mechanism of claim 11 wherein the integrated circuit package includes a flip chip pin grid array.
- 1 22. The retention mechanism of claim 11 further comprising a heat sink in contact with the concave surface of the pressure plate.
- 1 23. An electronic assembly comprising:
- a paraboloid, elastically deformable pressure plate, having a concave surface,
- a convex surface, a summit, and a periphery spaced away from the



1	26.	A method of testing a retention mechanism comprising:
2		creating a daisy chain from a circuit board through a connector into a
3		integrated circuit package to a die and back to the circuit board; and
4		measuring resistance between the die and the circuit board.
1	27.	The method of testing of claim 26 further comprising:
2		determining the contribution of the connector to the total resistance; and
3		determining the extent of contact between the connector and the integrated
4		circuit package.
1	28.	The method of testing of claim 26 further comprising:
2		measuring the resistance between the integrated circuit package and the
3		circuit board.
1	29.	A method of assembling an electronics assembly comprising:
2		placing an integrated circuit package on a circuit board;
3		placing a slightly curved pressure plate on a top surface of the integrated
4		circuit package;
5		placing a slightly curved backing plate on a bottom surface of the circuit
6		board; and
7		applying force to outer edges of the plates to retain the integrated circuit
8		package on the circuit board and to create an evenly distributed
9		pressure across conductors of the integrated circuit package.
1	30.	The method of claim 29 further comprising:
2		placing a heat sink on the slightly curved pressure plate; and
3		attaching the heat sink to the circuit board.
1	31.	The method of claim 29 further comprising placing a gasket between the
2		integrated circuit package and the slightly curved pressure plate.